

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO	PLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,804		12/14/2001	Mika Salmivalli	P284103 2980417US/KA/ 1649 HER	
909	7590	02/13/2004	004 EXAMINER		NER
		THROP, LLP	TRUONG, THANHNGA B		
P.O. BOX 10500 MCLEAN, VA 22102				ART UNIT	PAPER NUMBER
				2135	L
				DATE MAILED: 02/13/2004	T

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	10/014,804	SALMIVALLI, MIKA					
Office Action Summary	Examiner	Art Unit					
	Thanhnga Truong	2135					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute,  - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status	6(a). In no event, however, may a reply be tir within the statutory minimum of thirty (30) day ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. (35 U.S.C. § 133).					
1) Responsive to communication(s) filed on 14 E	<u> December 2001</u> .						
2a)☐ This action is <b>FINAL</b> . 2b)⊠ Thi	s action is non-final.						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims							
4) Claim(s) 1-9 is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-9</u> is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/or election requirement.							
Application Papers							
9) The specification is objected to by the Examiner.							
10)⊠ The drawing(s) filed on <u>14 December 2001</u> is/ar	e: a)⊠ accepted or b)□ objected	to by the Examiner.					
Applicant may not request that any objection to the							
11)☐ The proposed drawing correction filed on		oved by the Examiner.					
If approved, corrected drawings are required in reply to this Office action.							
12)☐ The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a	a)-(d) or (f).					
a)⊠ All b)□ Some * c)□ None of:							
1. Certified copies of the priority documents	s have been received.						
2. Certified copies of the priority documents	2. Certified copies of the priority documents have been received in Application No. 10/014,804.						
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) ☐ The translation of the foreign language provisional application has been received.  15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachment(s)	. ,						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5	y (PTO-413) Paper No(s) Patent Application (PTO-152)						

Application/Control Number: 10/014,804

Art Unit: 2135

#### **DETAILED ACTION**

# Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kortesalmi et al (US 6, 427, 073).
  - a. Referring to claim 1:
    - i. Kortesalmi teaches:
- (1) creating a database containing records which each contain a mobile equipment identity associated with a mobile station and at least one mobile subscriber identity [i.e., referring to Figures 6-8, a table 60 for storing the terminal identities (IMEI, columns 62 to 64) allowable to said subscriber identity (IMSI, column 61) is created in connection with the home location register HLR. An existing table, file or data base may alternatively be expanded to include the-data of table 60 (column 5, lines 28-35)],
- (2) the mobile station transmitting the mobile equipment identity associated with the mobile station and at least one mobile subscriber identity [i.e., Figure 7 illustrates subscriber authentication according to the invention. At stage 71 the centre MSC/VLR receives a subscriber identity IMSI and a mobile identity IMEI.sub.MS from a mobile station in connection with location up-dating (column 5, lines 64-67)],
- (3) checking whether there is a record in the database, which contains a mobile equipment identity corresponding to the mobile equipment

Application/Control Number: 10/014,804

Art Unit: 2135

identity transmitted by the mobile station, but whose mobile subscriber identity does not correspond to the mobile subscriber identity the mobile station has transmitted, and if yes, producing at least a signal indicating that the mobile equipment identity is possibly a copied one [i.e, referring to Figure 7, At stage 72 an inquiry is sent to the home location register HLR by using the IMSI received. At stage 73 the MSC/VLR receives from the home location register a list of IMEI codes IMEI.sub.HLR corresponding to the IMSI. At stage 74 a check is made to see if IIV is in use, and if not, at stage 75 the MS location updating is accepted. If IIV is in use, a check is made at stage 76 to see if the IMEI.sub.MS sent by the mobile station is included in the IMEI.sub.HLR list sent by the home location register HLR, i.e. if it corresponds to one of the IMEI.sub.HLR identifiers sent by the home location register HLR. If this is the case, the MS location updating is accepted at stage 75. Otherwise the location updating is rejected at stage 77 and the use of the mobile station is prohibited (column 6, lines 8-19). Furthermore, as shown in Figure 8, if IIV is not in use, the MSC/VLR sends to the mobile station an acknowledgement 85 of accepted location updating. A positive acknowledgement 85 is also sent if the IMEI.sub.MS sent by the mobile station corresponds to one of the IMEI.sub.HLR identifiers sent by the home location register HLR. A negative acknowledgement 86 is sent if IIV is in use for said subscriber and the IMEI.sub.MS sent by the mobile station does not correspond to any of the IMEI.sub.HLR identifiers sent by the home location register HLR (column 6, lines 29-37). In the scope of Kortesalmi, the use of a copied SIM card refers to any technique of using fraudulently the SIM card data of another mobile subscriber (column 4, lines 33-35)].

# b. <u>Referring to claims 2 and 3:</u>

i. These claims have limitations that is similar to those of claim 1 part (3), thus they are rejected with the same rationale applied against claim 1 part (3) above.

## c. Referring to claim 4:

i. Kortesalmi further teaches:

Page 3

Application/Control Number: 10/014,804 Page 4

Art Unit: 2135

updates its location [i.e., Figure 7 illustrates subscriber authentication according to the invention. At stage 71 the centre MSC/VLR receives a subscriber identity IMSI and a mobile identity IMEI.sub.MS from a mobile station in connection with location up-dating (column 5, lines 64-67)].

# d. Referring to claim 5:

- i. Kortesalmi further teaches:
- (1) wherein step (3) is performed at predefined intervals [i.e., referring to Figures 7 and 8, "performing at predefined intervals" is considered to be used in the subscriber authentication].

## e. Referring to claim 6:

- i. Kortesalmi further teaches:
- (1) wherein the database is created in the home location register [i.e., two types of data bases are involved in the routing of calls. Subscriber data on all subscribers is stored in a home location register HLR permanently or semi-permanently, including information on the services the subscriber can access and the present location of the subscriber. An other type of register is a visitor location register VLR (column 1, lines 54-58)].

## f. Referring to claim 7:

i. This claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

#### g. Referring to claim 8:

i. This claim has limitations that is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

## h. Referring to claim 9:

- i. Kortesalmi teaches:
- (1) an element of a mobile network, which comprises a database, containing records, each record containing an international mobile equipment identity associated with a mobile station and at least one international mobile subscriber identity [i.e., referring to Figures 6-8, the parts of a mobile communication

Art Unit: 2135

network, a table 60 for storing the terminal identities (IMEI, columns 62 to 64) allowable to said subscriber identity (IMSI, column 61) is created in connection with the home location register HLR. An existing table, file or data base may alternatively be expanded to include the-data of table 60 (column 5, lines 28-35)].

#### Conclusion

- 3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Schroderus et al (US 5, 907, 804) discloses the invention relates to method for checking a personal identification number (PIN) of a subscriber in a mobile equipment (500) employed in a mobile communications system (600), the mobile equipment containing a protected subscriber identity (IMSI, ITSI) (see abstract).
- b. Parker (US 6, 124, 799) discloses an apparatus and method for locking and unlocking mobile telecommunications handsets or other devices. Each handset is unactivated at the time of purchase. Other than emergency calls, or account activation, no calls can be made using the handset unless it has been unlocked. The handset is capable of receiving a readable subscriber identity module (SIM) having a network (or other) ID and a codeword, and its operation is to be locked and unlocked with respect to the entity corresponding to the ID on the SIM (see abstract).
- c. Ahvenainen (US 6, 148, 192) discloses a method for checking the access right of a subscriber equipment, whereupon a mobile equipment can be formed by attaching the subscriber identification module to any subscriber equipment. Before the subscriber identification module is detached from the subscriber equipment, the equipment identity of this subscriber equipment is stored in the subscriber identification module (see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 703-305-0327.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax and

Application/Control Number: 10/014,804

Art Unit: 2135

Page 6

phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TBT

January 29, 2004

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2103